



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,574	02/28/2002	Edward Harrison Teague	020111	9018
23696	7590	04/14/2005	EXAMINER KIM, KEVIN	
Qualcomm Incorporated Patents Department 5775 Morehouse Drive San Diego, CA 92121-1714			ART UNIT 2634	PAPER NUMBER

DATE MAILED: 04/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/086,574	Applicant(s) TEAGUE ET AL.	
	Examiner Kevin Y Kim	Art Unit 2634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12,13,15,17-26,28,29,31 and 32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19-26,28,29,31,32 is/are allowed.
- 6) ☒ Claim(s) 12,13,15,17 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendments overcame the rejection(s) of claim(s) 12,13,15,17-19 under 35 USC. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made with respect to claims 12,13,15,17 and 18 in view of a newly found prior art.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 12,13,15, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sendonaris (US 6,728,303).

Claims 12 and 13.

Sendonaris discloses a method of time-tracking a plurality of fingers in a Rake receiver, (see col.2, lines 23-28) comprising;

restricting each finger from tracking outside motion limits for that finger, see col. 3, line 42 ~ col.4, line 2, describing a small pull-in range, outside which the advance or retard of a finger is disabled,

determining the motion limits for a finger in accordance with the position of one or more adjacent fingers, see col.3, line 67 ~ col.4, line 45 describing the small pull-in range, expressed as a function of β , which is selected in accordance with the position of one or more adjacent fingers.

Sendonaris fails to teach that “no advance limit is set for a finger with no adjacent finger ahead in time within a pre-determined offset limit” or that “no retard limit is set for a finger with no adjacent finger behind in time within a pre-determined offset limit.” In other words, the first finger in time of the Rake receiver is allowed to advance without a limit. However, the timing tracking method of Sendonaris is to prevent fingers from merging while tracking a CDMA signal. See col.1, lines 27-38. It follows that a finger that would not merge with another finger when moved in time needs no limit in that direction. Such fingers are the first finger and the last finger, which do not have an adjacent finger ahead in time and an adjacent finger behind in time respectively. Thus, it would have been obvious to one skilled in the art at the time the invention was made to remove an advance limit for the first finger and a retard limit for the last finger of the Rake receiver of Sendonaris because there is no need for such a limit.

Art Unit: 2634

Claim 15.

Sendonaris discloses a method of time-tracking a plurality of fingers in a Rake receiver, (see col.2, lines 23-28) comprising;

Restricting each finger from tracking outside motion limits for that finger, see col. 3, line 42 ~ col.4, line 2, describing a small pull-in range, outside which the advance or retard of a finger is disabled,

Regenerating the motion limits periodically, see col. 4, lines 24-46.

Claims 17 and 18.

Sendonaris discloses a method of time-tracking a plurality of fingers in a Rake receiver, (see col.2, lines 23-28) comprising;

Restricting each finger from tracking outside motion limits for that finger, see col. 3, line 42 ~ col.4, line 2, describing a small pull-in range, outside which the advance or retard of a finger is disabled,

Regenerating the motion limits subsequent to the issuance of a time-tracking command. see col. 4, lines 24-46. According to Sendonaris, a time tracking command is issued to bring the fingers within a predetermined range and after that, the motion limits could be dynamically updated.

Allowable Subject Matter

5. Claims 19-26,28,29,31 and 32 are allowed.

Art Unit: 2634

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

La Rosa (US 6,078,611) and Färjh (US 5,978,423) teach restricting filter movements in a Rake receiver.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Y Kim whose telephone number is 571-272-3039. The examiner can normally be reached on 8AM --5PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KEVIN KIM
PATENT EXAMINER

